

Appl. No. 10/806,026

Response dated August 3, 2004

Reply to Office Action of Jun. 3, 2004

IN THE CLAIMS:

Please amend the claims to read as follows:

1-22. (canceled)

23. (currently amended) ~~The process of claim 21~~ A process for making metallic concentrates and plastic articles, the process comprising:

(a) providing metallic ore particulates;

(b) contacting the particulates with reagent in the presence of water to produce coated particulates having a water repellent air avid coating to produce an interaction mass;

(c) agitating and aerating the interaction mass to form a (i) froth comprising floating metallic particles and (ii) an underflow comprising water and solid tailings;

(d) separating at least a portion of the froth from the underflow;

(e) bulk separating the water from the tailings;

(f) drying the tailings to produce a tailing composition comprising less than 1 percent by weight water, the tailing composition comprising (i) calcium carbonate, (ii) silica and (iii) lead sulfide;

(g) admixing the tailing composition with a thermoplastic resin; and

(h) melt processing the admixture to produce a thermoplastic article, wherein the article is in the form of a crosstie or car stop.

24-35 (canceled)

36. (original) A railroad tie made by melt processing a thermoplastic composition comprising:

(a) a thermoplastic resin; and

(b) a calcium sulfate composition comprising a calcium sulfate present at a level of from 50 to 99 percent by weight based on the total weight of the calcium sulfate composition.

37. (original) The tie of claim 36 wherein the thermoplastic resin is a polyolefin.

38. (original) The tie of claim 36 wherein the thermoplastic composition also includes an epoxidized

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oil.

39. (original) The tie of claim 36 wherein the thermoplastic composition includes the thermoplastic resin in an amount of from 40 to 75 percent by weight based on the total weight of the thermoplastic composition, the calcium sulfate composition in an amount of from 25 to 60 percent by weight based on the total weight of the thermoplastic composition, and the oil in an amount of from 0.5 to 2 percent by weight based on the total weight of the thermoplastic composition.

40-43. (canceled)

44. (currently amended) A process for making a railroad track, the process comprising:

- (a) making thermoplastic composite railroad ties from a thermoplastic composition comprising a calcium sulfate, and a polyolefin resin, ~~and an epoxidized oil;~~
- (b) laying the ties on a raised rail bed; and
- (c) placing rail on the ties.

45. (currently amended) The tie of claim 36 wherein the tie ties include holes for receiving carriage bolts for securing ~~the~~ rail to the ~~ties~~ tie.

46. (original) The process of claim 44 wherein the composition comprises a yellow colorant.

47. (original) The railroad tie of claim 36, wherein the tie has a top and a bottom, and the bottom is broader than the top.

48-63. (canceled)

64. (currently amended) A product made by the process of ~~any one of claims 1-11, 20-30, 40-44, and 46~~ claim 44.

65. (new) The tie of claim 36 wherein the composition comprises a yellow colorant.

66. (new) The process of claim 44 wherein the ties include holes for receiving carriage bolts for securing the rail to the ties.

67. (new) The tie of claim 36, wherein the tie has a top and a bottom, and the bottom is broader than the top.

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68. (new) The tie of claim 36, wherein:
- the composition comprises a yellow colorant,
  - the tie includes holes for receiving carriage bolts for securing rail to the tie, and
  - the tie has a top and a bottom, and the bottom is broader than the top.
69. (new) The tie of claim 37, wherein:
- the composition comprises a yellow colorant,
  - the tie includes holes for receiving carriage bolts for securing rail to the tie, and
  - the tie has a top and a bottom, and the bottom is broader than the top.
70. (new) The process of claim 44, wherein:
- the composition comprises a yellow colorant,
  - the ties includes holes for receiving carriage bolts for securing the rail to the ties, and
  - the ties have a top and a bottom, and the bottom is broader than the top.